

Amendments to the Claims:

1 - 12. (canceled)

13. (currently amended) A device for evaporating samples in sample vessels, each of said vessels being provided with at least one filling opening, said device comprising

holding means for simultaneously holding several sample vessels,

connection means connectable to the filling openings, by way of which the filling openings of the sample vessels individually or in groups are hermetically connectable to means for producing a vacuum and thereby may be evacuated,

the connection means comprising at least one connection plate which is sealingly pressable onto the filling openings of the sample vessels, or is suctioned by the vacuum, and which is provided with connection paths for connecting the filling openings to the connection of the means for producing a vacuum,

the at least one connection plate comprising longitudinal channels which extend from its lower side, directed towards the sample vessels, of the at least one connection plate and which are placeable aligned onto the filling openings,

the longitudinal channels extending through the at least one connection plate up to an upper side distant to the lower side, each channel having an exit opening at its upper side, wherein the upper side is provided with at least one recess which communicates with the longitudinal channels, and

baffles formed between the exit opening of the longitudinal channels and the recess so as to prevent reflux of condensate into the sample vessels.

14. (previously presented) A device according to claim 13, further comprising drive means for producing a vortex movement, said connection means being flexible so that the holding means and the sample vessels are movable independently of the means for producing a vacuum.

15 - 18. (canceled)

19. (currently amended) A device according to claim 13, wherein the at least one connection plate comprises a connection opening which communicates with the recess and which is connectable to the means for producing a vacuum.

20. (currently amended) A device according claim 13, wherein the connection means further comprise a sealing plate which for sealing the recess is placeable onto the at least one connection plate.

21. (previously presented) A device according to claim 20, wherein the sealing plate is made of transparent heat-resistant glass.

22. (currently amended) A device according to claim 20, wherein the sealing plate and/or the at least one connection plate comprise aligning means for centering and firmly holding the at least one connection plate with respect to the holding means.

23. (previously presented) A device according to claim 13, wherein the holding means and/or the connection means are adaptable to a differing number and size of sample vessels.

24. (canceled)

25. (previously presented) A device according to claim 13, wherein the level of the exit opening lies above the level of a base of the recess.

26. (previously presented) A device for evaporating samples in sample vessels, each of said vessels being provided with at least one filling opening, said device comprising

- holding means for simultaneously holding several sample vessels,
- connection means connectable to the filling openings, by means of which the filling openings of the sample vessels individually or in groups are hermetically connectable to means for producing a vacuum and thereby may be evacuated,
- wherein with the connection the filling openings are connected directly via tubing to the means for producing a vacuum.